Chapter 7A

FIRE-RESISTANT MATERIALS AND CONSTRUCTION METHODS USED WITHIN WILDLAND AREAS

SECTION 701A-SCOPE

This chapter applies to building materials and systems used in the exterior design and construction of buildings and structures located within wildland areas to safeguard against fire penetration and the spread of fire to buildings from vegetation and from building to building. (revisit this)

The scope of these provisions shall apply to the exterior shell of buildings and structures located in designated wildland areas as determined by the fire authority.

SECTION 702A - PURPOSE

These standards include but are not limited to, measures that increase the likelihood of a structure to withstand intrusion by fire, such as building design and construction requirements that use fire resistant building materials, and provide protection of structure projections, including porches, decks, balconies and eaves, and structure openings including attic and eave vents and windows that have been tested with the intent of resisting the intrusion of a wildland fire. Authority cited: Government Code 51189 Paragraph A

SECTION 703A-DEFINITIONS

For the purposes of this chapter, the terms, phrases and words listed in this section and their derivatives shall the indicated meanings. (TBA)

SECTION 704A-FIRE-RESISITANT MATERIALS AND SYSTEMS

704A.1 General.

Materials and systems used for fire-resistant purposes shall be limited to those accepted under test procedures given in Section 704A.2 . (need to establish the baseline for performance timeframe)

Alternate fire-resistant materials, assemblies and construction methods maybe approved by the building official on the basis of evidence submitted showing that the construction meets the required fire resistant performance criteria. (Equivalent to one-hour rating or other specific performance requirement – for variation, reference standard?)

704A.2 Qualification By Testing

Material and material assemblies tested in accordance with the requirements set forth in 704A.3 shall be accepted for use in accordance with the results and conditions of such tests.

704A.3 Standards of Quality.

The UCFPL standards listed below are also listed in Chapter 35, Part III and are part of this code.

[For SFM] The standards listed below are adopted by the State Fire Marshal and are listed in Chapter 35. (Need to establish performance threshold for each UCFPL standard)

- 1. UCFPL-WI1.0 "Exterior Wall Wildfire Exposure Test"
- 2. UCFPL-WN1.0 "Exterior Window Wildfire Exposure Test"
- 3. UCFPL-D1U "Unloaded Deck Wildfire Short Exposure Test"
- 4. UCFPL-D1L "Loaded Deck Wildfire Short Exposure Test"
- 5. UCFPL-D2U "Unloaded Deck Wildfire Long Exposure Test"
- 6. UCFPL-D2L "Loaded Deck Wildfire Long Exposure Test"
- 7. UCFPL- (Doors?)
- UCFPL-

SECTION 705A ROOFS

705A.1 General.

Roof assemblies shall conform to the standards and requirements set forth in, Chapter 15, Sections 1502, 1503.1, 1503.2, 1503.3, 1504.2.1, 1507.15. (SFM to submit a code change to the standards to include "materials used in installation must be equal to, or greater than, the materials used in the assembly tested").

705A.2 Roof Openings

All openings into the roof and attic area including skylights and eave, gable, dormer, ridge sewer and exhaust vents shall be constructed to prevent the intrusion of flame and embers into the attic area of the structure.

Committee Intent: Not necessary here to regulate any vents that do not open directly into the attic area, i.e. sewer vents.

705A.2.1 Roof Vents

All roof and attic vents shall be protected by screening material that conforms to Chapter 15, Section 1505.3.

705A.2.2 Vent Baffles

All roof, eave, and soffit vents shall be equipped with baffles or other device(s) that prevent the intrusion of embers and flames into the attic area of the structure.

705A.2.3 Skylights

Skylights shall be installed in conformance with the UCFPL-WN1.0 "Exterior Window Wildfire Exposure Test" standard. be constructed and installed to provide fire protection equivalent to that provided by the required roof assembly.

Committee Intent: To protect the integrity of the entire roofing assembly.

705A.3 Roof Gutters

Roof gutters and downspouts shall be composed of non-combustible materials installed in conformance with adopted standard UCFPL-WI1.0 Section 10. Gutters shall be constructed and maintained free of debris, to prevent ignition of the roof edge and to limit the spread of fire to other building components.

SECTION 706A - EXTERIOR WALLS

706A.1 General.

Exterior wall assemblies shall be constructed in conformance with the standards and requirements set forth in Chapter 7, Section 709.

706A.2 Exterior Siding.

Exterior siding and cladding assemblies shall be constructed in conformance with adopted standard UCFPL-WI1.0 Sections 5 and 7? to limit the spread of fire to other building components and to prevent the intrusion of flame and radiant heat into the interior of the structure. Exterior siding and cladding materials used shall not contribute to the production of firebrands. (Need more information from lab – 1 hour?)

706A.3 Exterior Wall Openings.

Exterior wall openings shall be constructed to limit the spread of fire to other building components and to prevent the intrusion of flame, embers and radiant heat into the interior of the structure.

706A.3.1 Windows

Exterior windows shall be installed in conformance with adopted standard UCFPL-WN1.0 Section 6?

| Other options: Fire shelter material' visible flame? | ? Non-combustible shutters | - what is trigger? Heat, smoke, | | |
|---|-----------------------------|---------------------------------|--|--|
| Lab question: How is performance and 300 kW flames? | affected by larger windows? | What is heat output on 150 kW | | |
| Note: All proposed window regulations must be evaluated in light of the CEC standards | | | | |
| 706A.3.2 Doors Exterior doors shall be installed in country to | conformance with | of adopted standard | | |
| (Glass doors – same as window standards? Other doors - refer to other /existing standards?) | | | | |
| Note: What building standards have been adopted by local agencies? | | | | |
| State Fire Marshal CBC – Draft Regulations Urban Wildland Interface | - 3 - | 11/18/02 | | |

706A.3.3 Wall Vents

Eave, crawlspace and exhaust vents shall be equipped with vent baffles or other device(s) to prevent the intrusion of embers and flames into the interior of the structure.

Eave, crawlspace and exhaust vents shall be protected by screening material that conforms to Chapter 31, Section 3102.3.8a

Committee intent: This is covered by Section 2306.7 "Underfloor ventilation"

706A.4 Exterior Wall Projections

Exterior wall projections, including but not limited to eaves, soffits, balconies, porches and stairs shall be constructed to limit the spread of fire to other building components and shall be protected on the exposed underside by non-combustible materials shall be constructed and installed to provide fire protection equivalent to that provided by the required exterior wall assembly

Materials used to construct exterior wall projections shall not contribute to the production of firebrands.

707A. ANCILLARY STRUCTURES

707A.1 General.

Attached ancillary structures, including but not limited to carports, decks, patio covers and fences shall be constructed to limit the spread of fire to other building components.

Materials used to construct ancillary structures shall not contribute to the production of firebrands.

| (A fence that is attached to the | e structure and that portion which is constructed within _ | feet |
|----------------------------------|--|------|
| of the structure shall | ?) | |
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